Authentification of the Origin and Content of Paperless Transactions and Questions of Liability in Continental Law part 2

Thunis, Xavier; Amory, Bernard

Published in:
International Computer Law Adviser

Publication date:
1988

Document Version
Publisher's PDF, also known as Version of record

legislation already exists. As a result, I have not addressed other forms of protection for chip designs, because in some cases they are explicitly excluded (*e.g.*, copyright protection in Sweden and the Netherlands), and in other cases they seem to be of less relevance or already commonly known.

Also I have primarily focused on the structure of legislation and not on detailed questions, such as a potential conjunction of chip protection and software (copyright) protection for the microcode in a microprocessor. The answers to such highly interesting questions demand focusing on the details of a given case and a conscientious study of national law.

Thoroughly motivated case law will be warmly welcomed to explain certain aspects and concepts of chip protection law. At this moment, practice is not served by wild speculation on the interpretation of the laws. This can only bring uncertainty.

Alfred Meijboom is a researcher at the Computer/ Law Institute, Vrije Universiteit, de Boelelaan 1105, Amsterdam, The Netherlands. He is currently engaged in a Ph.D. study on the comparative aspects of hardware and software protection.

Footnotes

1. Hugenholtz, "De spin-offs van de Amerikaanse chipswet," *Informatierecht/ AMI* 1986, at 36.

2. For economic purposes the wafer contains as many chips as possible. Every chip on the wafer is called a "dice." They are sawed out of the wafer in almost the last stage of production. After they are cut from the wafer, the chips are connected to small pins to enable them to communicate with the outside world and placed in a plastic or ceramic packing.

3. President, District Court Zwolle, July 22, 1983, Bijblad bij de Industriële Eigendom 1983, at 332.

4. House of Lords, Feb. 27, 1986, [1986] AC 577.

5. Jehoram, "The European Commission Pressured into a 'Disharmonizing' Directive on Chip Protection," [1987] 2 *Eur. Intell. Prop. Rev.* 35.

6. *See* **D. Ladd, D. Leibowitz & B. Joseph, Protection for Semiconductor Chips Masks in the United States** 35 (1986); **R. Stern, Semiconductor Chip Protection** 168 (1985).

7. **D. Hanson, The New Alchemists** 180 (1982).

8. Laurie, "First Year's Experience Under the Chips Protection Act or 'Where are the Pirates Now That We Need Them?' ",*Computer Law.*, Feb. 1986, at 11.

FRANCE/BELGIUM

Authentication of the Origin and Content of Paperless Transactions and Questions of Liability in Continental Law: Part 2

BY BERNARD AMORY & XAVIER THUNIS

[Part 1 of this article was published in the October 1988 issue of the *Adviser*.]

To illustrate the authentication problems raised by electronic funds transfers, in the first part of this article we used a hypothetical transaction in which many parties were involved in the transfer operation. This type of transaction creates liability problems which are quite complex to settle.

A. The parties

We first present a simplified diagram to bring out the fundamental relationships characterizing any teletransmission of data using either the telex, telephone, or telematics (telecommunication and data processing). The teletransmission of data involves at least three parties as illustrated in Figure 1 on the next page.

1. Provider and receiver of data

The provider may be a *company*[1] which uses the communication network to place an order for goods or services whose particulars are teletransmitted. Conversely, it may be a company which has made an offer of goods or services it provides, or conversely, it may be the company which accepts the offer. The provider of the data is not necessarily unique. It happens frequently that several natural and/or juristic persons together produce the data which will be transmitted through the network.

For instance, in the field of data banks, the provider is often composed of a data producer and a

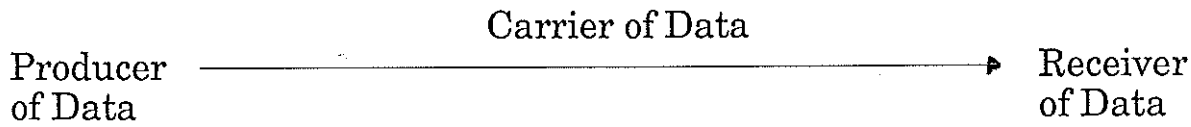

Figure 1

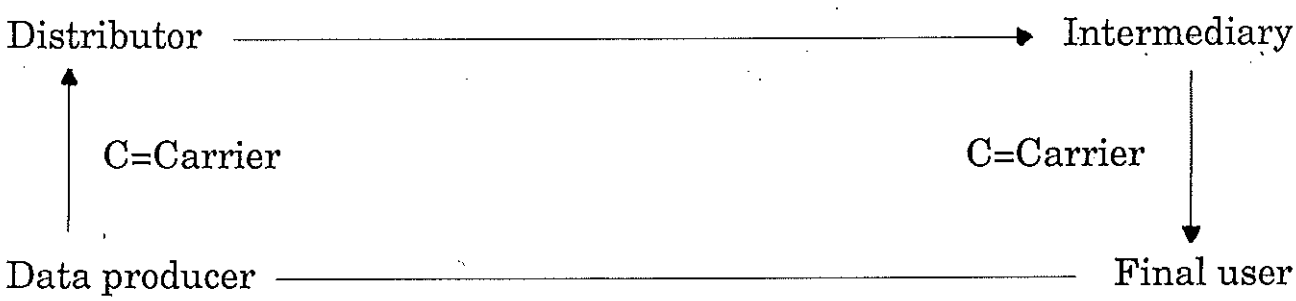

Figure 2

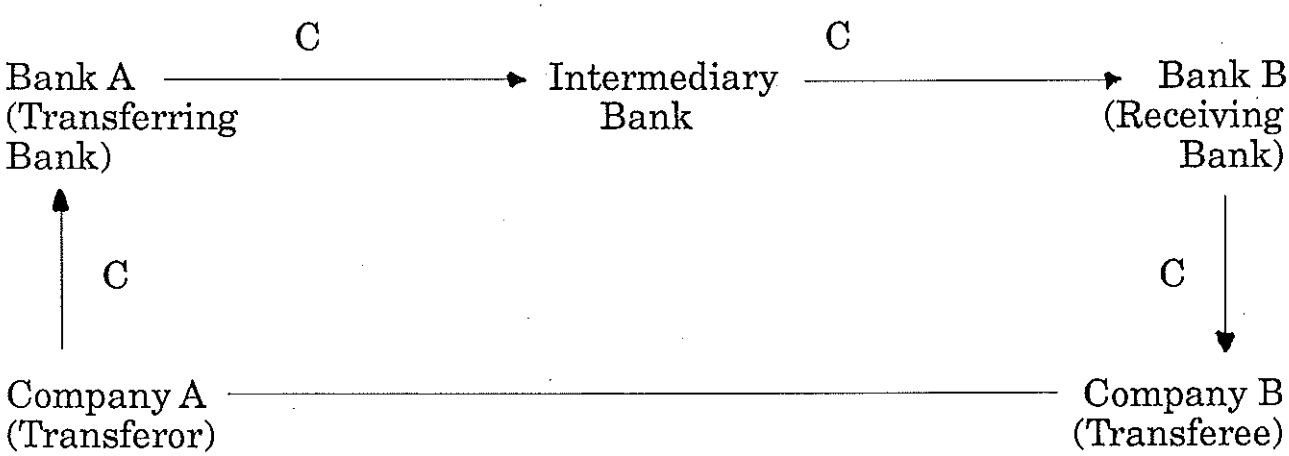

Figure 3

data distributor[2,3] (the host computer). The data producer's work precedes the distributor's intervention; intermediaries may also come between the distributor and the final user of the data to select and adapt them to the user's needs.[4] (See Figure 2).

In an electronic funds transfer, the customer ordering the transfer and the transferring bank may produce financial information. The addressee is then composed of the receiving bank and its customer, *i.e.*, the company benefiting from the transfer. (See Figure 3).

2. Carrier of the data

The carrier provides the transmission between the producer of data and the user. This transmission often requires the cooperation of different carriers, *e.g.*, in the case of transborder data flows. There are many types of carriers—private carriers, public carriers, and carriers where the private and the public sector are associated under various legal forms.

A carrier's liability seems to depend more on the kind of services it provides than on its legal form—public, private, or both public and private. If the liability is reduced for a carrier providing basic telecommunications services, it is generally thought that this reduction must be extended to telecommunication services with added value, *i.e.*, services involving the modification (encryption) of transmitted data.[5]

It is a different situation when the telephone lines used for the transmission of information are leased from the P.T.T. by a private company.[6] This is often the case in the teletransmission of financial data, which is currently the most significant example of intangible transactions. We restrict ourselves in this article to an analysis of this particular type of transaction.

B. Damages[7]

1. Possible risks, compensable damages

If a person is to be held liable for a commission or an omission, his faulty act must cause damage to somebody else. What risks and possible damages may arise from the use of a financial data telecommunication network? They include:

- Transmission of incomplete or falsified data to an addressee
- Transmission of data to an erroneous addressee
- Transmission of data by an unauthorized sender
- Delay in the transmission of data.

If one of these risks arises from fault, negligence or error, damages will normally be imputed to one of the parties to the transaction (see below).

A member of a financial telecommunication network (such as S.W.I.F.T.) may suffer four types of damages:

- Loss of the principal amount (total or partial). This happens when an electronic transfer is credited to the wrong account, credited to the right account for an excessive amount, or credited twice on the same account where the beneficiary subsequently withdraws the funds and they cannot be recovered.[8]
- Losses due to exchange rate fluctuations. This can result from a delay in the transfer, either due to the banks, or to their customers who, for cash management reasons, retain the order up to the last moment.
- Losses due to exchange rates fluctuations. This can happen when a delay in the transfer is combined with an exchange rate fluctuation.

[The damages mentioned under points 2 and 3 can be evaluated only if the time period within which the transfer should have been effected can be precisely defined.]

- Indirect (consequential) damages. The concept of indirect damages is not easy to define because it implies that the causal relationship between the fault and the damages is established. In most cases, this is the most crucial problem.

The U.N. Draft Legal Guide on Electronic Funds Transfers quotes, as examples of indirect damages, the loss of a contract or the imposition of a penalty charged to the transferor because the order has not been performed properly.

According to the same publication, the transferring bank would not be held liable for unforeseeable indirect damages when it has received an order for the transfer of funds from the transferor, except if the bank's failure to execute the order results from wishfulness of the bank. Some nuances must be considered in Belgian and French law, at least because they confuse many different ideas.

2. Compensable damages, the principles

In the contract field, articles 1150 and 1151 of the Civil Code state two important principles:

(a) A debtor is responsible only for damages which were foreseen or which could have been foreseen at the time of the contract, when it is not by his willfulness that the obligation is not performed (art. 1150).

(b) Even where a failure to perform the agreement results from the willfulness of the

debtor, damages include only what is an immediate and direct consequence of his failure to perform the terms of the agreement (art. 1151).

As De Page points out,[9] the foreseeability of the damages is one thing, while determining if the damages are direct or indirect is another. It is understandable that the parties who have concluded an agreement try to limit their liability to what they can normally foresee at the time the agreement is made. The point is to determine what in fact is foreseeable.[10]

In contrast, in the extra-contractual field all damages, whether foreseeable or unforeseeable, may be recovered. This fact is of some interest in the case where a transferor wants to initiate an action against a bank without having any direct contractual relationship with this bank. If indirect damages mean damages which are not the necessary consequence of the fault, the causal link is missing. So-called indirect damages are thus not recoverable.[11]

Bearing in mind these principles, the examples quoted by the draft legal guide may not positively be qualified as indirect damages, nor even unforeseeable damages.

Since unforeseeable damages are as a rule not compensable, the transferor[12] could notify the transferring bank of the consequences attached to the non-performance or to a delay in their performance of the order of transfer. Having been so informed, the bank could not avoid liability by claiming that the resulting damages were unforeseeable. This suggested notification diminishes the risk of non-indemnification for the transferor.

It is properly noted that this information is not usually communicated either to the intermediary bank or to the beneficiary bank. There is no obstacle to their being added to the instructions which are sent by the transferring bank, although some technical difficulties may arise due to the requirement of standardized messages.[13] If the intermediary bank or the receiving bank does not take these instructions into account, by mistake or negligence, the transferor's recourse against his bank will probably be unsuccessful, because the latter will invoke the fault of a third party. The exception is if, pursuant to the doctrinal proposal[14] regarding the liability of the carrier, one makes the transferring bank liable for the whole network.

Finally, one has to bear in mind article 1153 of the Civil Code which states: "[i]n obligations which are limited to the payment of a certain sum, damages resulting from delay in execution consist only of payment for late interest at the legal rate." Nevertheless, the parties may stipulate in their agreement that any damages will exceed the legal rate.[15]

C. Allocation of liabilities

After the damages, consideration must be given to the other two conditions required for liability—fault and a causal link. These two elements cannot be separated, because the establishment of the causal link, as a matter of fact, is influenced by the assessment of fault.

We will examine the problems of liability arising in the relation between the creditor and the debtor who is also the transferor. We will also consider the relationship of the latter with his bank, and particularly the liability of the transferring bank for the whole network.

The interbank relations which do not constitute the main topic of this study will also be mentioned briefly.

1. Transferor-creditor relationship

By virtue of the basic commercial operation, the creditor (company B in the figures) is entitled to payment in cash, which is the counterpart of the services rendered or of the goods provided.

a. Damages suffered by the creditor. The creditor may suffer many kinds of damages:

- He does not receive the principal amount of his credit for various causes—the debtor is insolvent or declared bankrupt; willfully or by negligence he fails to give the transfer order, or the order lead to the crediting of the wrong account.
- He receives the principal amount but after a delay. The concept of delay implies that the time of payment be determined precisely, *i.e.*, in the relation between the creditor and the debtor, the term contractually defined and, in the relation between the debtor and the transferring bank, the "normal" term for the execution of the order. The damage in this situation consists of the loss of interest or, in the case of an international transaction, of the loss due to fluctuation in the exchange rates between the moment the payment ought to have been effected and the moment it was actually effected.

According to article 1153 of the Civil Code, the creditor is only entitled to claim interest for late payment at the legal rate. This is only a principle, and in practice the parties often provide more severe sanctions for the failing debtor, as article 1153 is only a supplementary provision.

It also must be remembered that in most cases, the electronic funds transfer is an international operation, and that the applicable law will not necessarily be the civil law as provided for in

Napoleon Code, either because another legal system has been chosen by the parties, or because the characteristics of the transaction, such as the place of performance, prompt the judge to settle the problems outside the system, as provided for in article 1153.

b. Allocation of liabilities. From the point of view of the creditor, the causes for non-payment or for delayed payment are two-fold:

• *Causes attributable to the debtor.* The transferor who issues an order because he has an obligation to perform towards the beneficiary is liable to the latter for the good performance of the order and cannot invoke a failure of his bank or of a transmitting institution. This means that the transferor bears the consequences of delayed performance of the order or of nonperformance due to a faulty act of his bank, such as delayed or bad performance of a correct order or of an order given in due time by the debtor.

• *Causes not attributable to the debtor.* The obligation of payment (understood in its common sense as the obligation to pay a certain amount of money) resting with the debtor is called "obligation de résultat" (an obligation whose result must be reached), to which the provision of article 1147 of the Civil Code applies. That article states that a debtor is liable for the payment of damages when he fails to prove that his failure to perform resulted from an outside cause which should not be imputed to him, and further, that there was no bad faith on his part. The concept of "outside cause" includes (a) force majeure (or act of God), (b) the act of a third party, and (c) the act of the creditor himself.

According to the Belgian Supreme Court, to relieve the debtor from its obligation to pay damages, *force majeure* implies an event making the performance of his obligation impossible, and whose cause is not imputable to any fault of the debtor.[16] Whether performance is possible or not must be determined reasonably.[17]

In our opinion, act of God or force majeure will play only a minor role in the field of electronic funds transfers. Let us assume that an intermediary bank has gone bankrupt or that the telecommunication network has broken down. This failure, which is unforeseeable and beyond the control of the debtor, does not make the execution of his obligation impossible, as alternative means of settlement, such as sending a check, remain possible. The debtor can only take advantage of the outside cause to justify a delay in making payment.

The *faulty act of a third party* exempts the debtor from liability, provided the debtor is not responsible for the third party. Belgian case law indicates that the debtor (Company A in the figures) is liable for the performance of his obligation towards the contracting party, even if he resorts to an agent for that purpose. The bank of the debtor or an intermediary bank chosen by the transferring bank are third parties. The debtor directly or indirectly has chosen them to perform the payment. Consequently, he is liable for their fault.[18]

Understandably, the *faulty act of the creditor* exempts the debtor from liability, either totally or partially. By virtue of this principle, the transferor will not bear the risk for a failure of his creditor's bank. Whether or not the bank is considered an agent of the creditor for reception of the payment,[19] it was designated to the transferor by the creditor, who is held to assume the consequences of his choice.

As the foregoing discussion suggests, the transferor is responsible for the proper execution of the transfer to his creditor. The intermediary banks are his auxiliaries, even if he only has a contractual relationship with his own bank. Consequently, the risk of non-payment, or for delayed payment, must rest with debtor, subject to the beneficiary's bank's failure.

2. Relation of the transferor with his bank

Having stated that the transferor, as a rule, is liable to the creditor, one must define whether the transferor or his bank is liable for the damages, consisting of a loss of interest for which the beneficiary claims payment, or of a loss of capital which the transferor owes to the beneficiary. Another situation where the financial consequences are more serious for the bank is if an erroneous or delayed transfer causes the loss or the termination of an agreement under which the transferor anticipated substantial profits. Should the bank be required to indemnify the transferor for this loss?

The answer to this question is to be found in general legal principles (*e.g.*, who has committed a fault, and are the damages a necessary consequence of this fault?) The parties may adapt these general principles to the case by including specific exemption of limitation clauses in their agreement.

For legal analysis, the electronic funds transfer has often been compared with the manual bank transfer, and some legal writers[20] have spoken of the electronic gyro. The following text adopts this comparison, which seems to be justified, as the bank transfer, electronic or not, is a transaction whereby banks enable their customers to use funds from one account to credit another account. The only change is the fact that the procedure is manual in one case, electronic in the other.

Referring to the four types of risk mentioned

above, one can distinguish[21] between authorized transfers and the unauthorized transfers.

a. Authorized transfers. Authorized transfers are those which are not affected by fraud or error, but which are not performed by the bank of the transferor or are performed with delay.

There is no problem when it is proven that the transferring bank has breached its contractual obligation to perform an order of transfer, but such a clear-cut case is not frequent. As for the manual bank transfer, the bank has to perform the order with due diligence. This raises the question of the normal term for the performance and the evidence of the date of acknowledgment of the order.

As already discussed, the debtor is liable for the faulty act of his agent. Similarly, the transferor is liable to its client for the failure of a third party, such as an intermediary bank, to transfer the funds in compliance with the given order, either by negligence, or as a result of insolvency (bankruptcy). The last case is more complex to solve by means of the classical principle governing the liability, because bankruptcy is an event beyond the control of the transferring bank. However, it would be unjustified to ascribe the damage to the transferor; the transferring bank should be blamed for its choice of correspondent. The solution to this matter is more within the concept of risk than the concept of fault.

The failure to perform the order or a delay in its execution may come from the transferor who communicates his instructions at the very last moment or whose account is insufficiently provisioned, which explains the postponed performance by the bank. The reason for the fault of the transferor may diminish or even excludes liability of the bank.[22]

Act of God (or force majeure) relieves the debtor from its liability. The agreement concluded between the banks and the companies define the scope of the exemption.

The parties are free, pursuant to article 1134 of the Civil Code, to limit or enlarge the concept of exculpatory clause:

1. A first classical kind of clause states that the bank undertakes to perform its duty with all due diligence. Nevertheless, the bank is not liable for problems due to breakdowns and other failures of the public data transmission networks. This clause complies with the common principles.

2. A second kind of clause broadens the concept of force majeure in a significant way, and stipulates, for instance, that "the bank can never be held liable for a temporary break of the service due to events beyond its control, such as a breakdown, a cut in the telephone lines, strikes, or circumstances justifying such a break, as for instance, work aimed at improving the existing equipment. The bank shall take all necessary measures to limit such interruptions to a minimum."

As such, a strike is not a case of force majeure,[23] but the parties can stipulate that all strikes will be considered as exculpatory cause.

As to a breakdown, which type of breakdown is it, *e.g.*, a shortage of power, fire, a breakdown in the computer system, a mistake in a software blocking the whole processing system? The last example unquestionably broadens the notion of force majeure. In our opinion, the bank should have back-up equipment to provide the customer with a system that would continue to operate even in the case of a breakdown.

3. A third type of clause is much more subtle: the customer and the bank agree explicitly that any financial or commercial trouble or damages (*e.g.*, loss of profit, commercial problems) or any action initiated against the customer by a third party constitute an indirect damage and does not entitle him to indemnification, even if the bank has been advised that such damages are likely to occur. The last part of this sentence refers explicitly to notification by the client to his bank of the possible damages resulting from the non-performance of his order since, as a result of notification, the damages become foreseeable.

The exemption stipulated to the advantage of the bank is very broad, and is valid since it does not free the bank from its fault or its gross negligence, and provided the actual substance of the obligation is not affected.

b. Unauthorized transfers.[24] A transfer is unauthorized if it has been initiated by somebody without the consent of the owner of the account, or if one element of the transfer, such as the amount, the addressee, the value or date has been altered. Either fraud or error may be the origin of an unauthorized transfer. One can envision several situations which invoke either the liability of the customer or the liability of the bank.

1. Dishonest employees of a bank may issue orders without the bank's consent to transfer funds on behalf and in the name of the employer by using a terminal located at the customer's premises. Authorized employees may also issue an order of electronic transfer to the benefit of somebody who is not entitled to payment.[25]

Irregular transfers do not occur only as a result of fraud. It may also happen if the transferring company through one of its employees or representatives makes an error or gives incomplete instructions to its bank.

2. Although the order is regularly issued by the

customer, the transfer is performed erroneously by the bank, which, for example, may credit a wrong account.

A fraud by the bank employees, or even by third parties, to the network is also possible. We do not attempt to present a comprehensive study of the liability problems.[26] Instead, we limit ourselves to laying down the principles guiding the search for a solution. A reference is also made to existing agreements.

• The principles. Although electronic funds transfer contracts contain provisions allocating liabilities between the bank and the transferring company, in order to appreciate the contract one should recall that the banker who receives an order from his customer must check it, but the scope of this obligation is not precisely defined by the legal writers.

• The agreements. The following clause gives a good example of how the agreements control the consequences of fraud.

> "The direct or indirect consequences, if any, resulting from the misuse of the service, either by authorized users or by third parties, will not be borne by the bank. The subscriber hereby agrees to assume the full responsibility for such misuse.
>
> The customer is liable for the fraud perpetrated by his employees (authorized or not) and by third parties.
>
> His account will thus be debited for the fraudulent transfers."

The ground for imposing liability on the customer could be sought in the classical concept of fault,[27] but the concept of risk seems to provide a more appropriate basis. This solution is indeed understandable because the customer controls or should control the premises from where the order is issued.

The transaction should not be obviously unusual, in which case it should draw the bank's attention. A transaction may be obviously unusual if it relates to amounts higher than those generally accepted, or if it is addressed to receivers who are totally unknown.

If the fraud has been made possible by an insufficient security system implemented by the bank, it would seem to be the bank's responsibility, although the customer (a company and, as such, a professional) chooses his means of payment, the banker, on the other hand, as a professional credit disperser, is primarily responsible for the data processing system it offers for the banking services—"The banker is a professional, he is liable for his technique, that is to say he bears the risk of it."[28]

This solution seems reasonable even if the confrontation of two professionals, the bank and the company, leaves room for more discussion[29] than in the case of a consumer-oriented system (in Belgium, Mister Cash, Bancontact, etc.), where an unequal access to information results in the bank bearing the risk of failure.

Two practical remarks complete the above-mentioned principles:

1. The onus of proof determines who, in fact, bears the risk of failure of the system. It is as difficult for a bank to prove that an irregular transfer is due to the customer's negligence as it is for the customer to prove that the bank has implemented an improper security system or has not observed its own security procedures.

The agreements establish the onus of proof by providing, for example, that the logging (computer-generated list of the effected transaction) by the bank constitutes formal and satisfactory evidence for the orders given by the subscriber, whatever the amount may be. The system works as follows: the logging generated by the bank computer is deemed *(presumption juris tantum)* to register the customer's instructions faithfully. The customer is liable for the order coming from his premises to the bank's computer.

Statements of account are also given to the customer, either in written form or telematicly. He can discuss them, the bank being responsible for the discrepancy, if any, between the instruction registered on the logging and the information borne by the statement of account.

2. We do not want the reader to conclude from the above comments that cases of fraud or error occur frequently. In fact, there are very few (although they may have important financial consequences) because the banks try to prevent them through security measures, such as changing passwords, maintaining a list of the persons authorized to initiate a payment, a list of the authorized beneficiaries, etc. According to certain financial managers and treasurers in the companies, the security procedures (*e.g.*, passwords) are too complex, and this is an obstacle to the enlargement of the electronic funds transfer system. Is there an inconsistency between the speed of transactions businesses require and the time-consuming procedures aimed at ensuring the security of the system?

3. If the agreements under review apply more particularly to the fraud problem, their provisions also permit the resolution of cases involving error.

—According to the principles, the bank is liable for an error committed in the performance of an order correctly given by the customer.[30] In this respect, the agreement imposes an obligation on the customer to dispute the information on the periodic statement of account provided to him. Failing to do so, he is deemed to consent to this information, and consequently, to the manner in which his instructions were carried out by the bank.

—One can not rule out that the customer can make a mistake in giving the instructions to the bank. As a rule, he will be held for the consequences of this mistake, it being understood that the bank would commit a fault if it executed incorrect instruction without prior verification.[31]

c. Countermanding of an order of transfer; Conditions. Let us assume that a customer gives an erroneous order of transfer or that he is the victim of a fraudulent order. Should he give up any hope for recovering the transferred amount?[32] The response is, in principle, no—he can lodge an action against the beneficiary for undue enrichment or, if there is fraud, for complicity in a misappropriation of funds.[33] Prevention is preferable, for the beneficiary may become insolvent and the customer then bears the risk of the insolvency.

It is in the transferor's interest to revoke the order if the bank has not found out the fraud or the error. This implies that the contract between the transferor and the bank does not prohibit such a measure and that the transfer of funds is not final. If the transferor has revoked his order in due time and in compliance with the regulations, he is entitled to demand that his bank take appropriate measures to avoid the order.[34]

If the bank performs the order, it will be held to the damage which flows from its performance, because the revocation cuts the causal link between the error or the fraud and the ensuing damages.[35]

Transferor's bank: Liability for the whole network?

Whether it is authorized transfers performed with delay or irregular transfers, a complex problem arises when nonperformance of the order is not caused by the transferring bank, but is due to the correspondent or intermediary bank[36] which has helped to perform the transfer. Two questions arise:

1. Is the bank which resorts to an intermediary bank for the performance of its duty liable to the transferor for faults committed by the intermediary bank? The answer is yes, because the faults committed by the agent do not constitute an outside cause for the debtor. The debtor is liable for the performance of his obligation even if he resorts to the services of a third party.[37]

The solution is not as clear-cut if the transferor has chosen the means of the transfer or has consented on the different stages of the transfer. He then shares liability with the transferring bank for the choice of the means to effect the transfer. Fundamentally, the transferor could be deprived of any action against his bank because the latter has provided for an exemption of liability for fault committed by its agent, for instance a corresponding bank.

2. If the transferor is a third party to the agreement concluded between his bank and the corresponding bank, can he lodge an action against the corresponding bank, and what is the nature of this action?

The answer is to be found in article 1165 of the Civil Code, which states that "agreements are effective only between the contracting parties." They do not harm a third party, and they benefit him only in the situation identified in article 1121 (stipulations for the benefit of a third party). Article 1165 enshrines the principle of independence of separate agreements. It would be wrong, however, to jump to the conclusion that the transferor is totally without contractual recourse against the intermediary bank.

Most of the legal writers[38] in the field of gyro transfers (and this extends to electronic transfers), are of the opinion that a mandate exists between the transferor and his bank which asks in the name and on behalf of the transferor to credit the beneficiary's account. If an intermediary bank comes into the network, it is an agent substituted in place of the first bank.[39] This implies that the payment is a legal deed, because the mandate relates only to the conclusion of legal deeds. If there is a mandate between the transferor and his bank, the first disposes against the second of a direct action on the basis of article 1994, section 2 of the Civil code.[40,41] This is an important point.

An in-depth discussion on the nature of the bank transfers is not possible in this article. A bank transfer is closely connected with a deposit of funds or with the opening of a line of credit. It is, in fact, a service whereby a bank offers its customers the possibility of mobilizing the deposit or the credit by means, electronic or not. As the portion devoted to the provision of services is important, we think the contract between the bank and the transferor looks more like the hire of a service, than like a mandate.

This qualification does not favor the transferor since under article 1165 of the Civil Code, he has no direct contractual recourse against the correspondent bank, except if one considers that

the transferor benefits from a stipulation annexed to the agreement concluded between the banks. This is very dubious. In order to get indemnification for damages, the transferor is left with the following solution—an action on a delictual or extracontractual basis (Civil Code 1382) against the faulty bank.[42]

But this solution is not satisfactory on the theoretical side[43] as or on the practical side, since the risk of the operation rests with the transferor. There are cases where the transfer has not been properly affected and where it is not possible to determine the cause of the damages. Each operator of the system is going to claim that the problem was not caused by him, with all problems of proof it favors the customer. We are in favor of the transferring bank being responsible for the whole network, at least with regard to the transferor.

In the field of international carriage of goods by road, article 43 of the C.M.R. Convention states that "the carrier shall be responsible for the acts and omission of his agents and servants and of any other persons of whose services he may use for the performance of the carriage . . . as if such acts and omissions were his own." This is an interesting precedent for possible guidelines on the electronic transfers of funds.

Interbank relation

Between financial institutions, the liability problems are also very complex. When does the liability for an order pass from one institution to another? In this respect, S.W.I.F.T is an interesting example of the allocation of liabilities,[44] which could inspire other telematic networks.[45] S.W.I.F.T. is liable for providing users with those services set forth in the service description and for the maintenance of security (art. 7.1).

S.W.I.F.T. undertakes to indemnify the user for a loss of interest due to a delayed payment when the delay results from S.W.I.F.T.'s fault. But S.W.I.F.T. is only liable for the loss or the direct damages sustained by a member observing the procedure and within the limits provided for by the user handbook (art. 7.2.2). Liability is limited to a maximum of one billion Belgian francs for direct loss or damages through any fraudulent or dishonest act committed by S.W.I.F.T. employees and 400 million Belgian francs for errors or omissions. S.W.I.F.T. is not liable for fraudulent transfers involving persons not directly or indirectly employed by S.W.I.F.T. It should be pointed out that S.W.I.F.T limits its liability to direct damages, *i.e.*, the loss of funds representing the principal amount as well as the loss of interests (improperly called indirect damages).[46]

As a rule, the bank which sends a message is responsible until the message has been acknowledged by S.W.I.F.T. The bank which receives a message is as a rule responsible from the point in time at which the message is delivered by S.W.I.F.T.

Members are liable for failing to observe the formal and procedural rules as well as for any lack of diligence on their part.[47] One a more general level, Professor Scott[48] has noted two basic principles in cases where regular orders have been substantially modified and mishandled by a bank of the network or even by a third party:

1. the transmitting institution, the intermediary, or the receiving bank are liable for any damages arising from any modification of the order.

2. the bank which makes a payment on the basis of a modified order is liable for the ensuing damages.

Obviously, the second rule departs from the concept of fault and burdens the bank with the risks of fraud committed by "outsiders." These rules are excerpted from a draft uniform code aimed at ruling the new means of payment. It has been discussed in the U.S.A. and its utility is seriously questioned.

The point in time at which the transfer is made

1. The problem

In civil law, a payment is the execution of an obligation contracted to the benefit of the creditor. As to bank transfers, a payment is final at the entry of credit to the creditor's account.[49] At first sight, one might think that electronic funds transfer simplifies the matter, as the period between the time of the order and the time of the credit is shortened considerably. Revoking an order is also made more difficult. The problem remains complex as many operators are involved in the process.

The importance of determining the time of payment appears to be crucial in many respects:

—identifying the precise time of payment determines how long a financial institution has delayed performance of the credit transfer[50]

—time of payment is important in determining whether funds have reached their destination by the time specified in the contract

—determining the time of payment is also important when a financial institution transfers funds to a bank that fails (or whose customer fails).[51] If the failing bank (or the customer) was not entitled to payment, the transferor will be a creditor for dividends in the bankrupt's total estate instead of recovering the total amount unduly transferred.

A conflict may also arise between a third party claimant (*e.g.*, a receiver) and the transferee who claims that the funds transfer was final before the third party right arose.

2. When does an electronic fund transfer become final?[52]

There are several moments which might be considered in determining when a funds transfer final.

1. When the transferor's account is debited. The theoretical ground for this solution is that the transferor thereby loses ownership of the funds. However, when an intermediary bank comes between the transferring bank and the receiving bank, it could be held an agent of the first bank. The transfer will be final only when the account of the intermediary bank has been debited.[53]

In many banking systems though, in compliance with American case law, the transfer only becomes final when the receiving bank has been involved in one way or another in the transfer.

The following also have been cited as possible moments for funds transfer to become final:

2. When the receiving bank's account has been credited by the transferor's bank.

3. When notice of the credit has been given to the receiving bank.

4. When the receiving bank decides to accept the credit transfer.

5. When the credit is entered to the transferee's account.

6. When notice of the credit is given to the transferee.

7. When settlement between the banks of the system has been made. This solution seems to find favor with the experts.

3. Assessment

A detailed analysis of the various possible solutions is beyond the scope of this article. Some of them have appeared in American case law. Practical problems are not be be ruled out. For example, in the fourth solution, the point of time at which the bank accepts the credit is often not determinable if certain forms have not been laid down previously.

In our opinion, one valid criterion for determining whether a transfer is final is the full ownership of the funds transferred. As a matter of fact, it often happens that the receiving bank credits its customer's account "subject to reversal" in case the debit transfer instruction is dishonored. As such, a provisional credit does not mean finality of the fund transfer, which is complete and final only if the credit may no longer be reversed. Generally speaking, the matter is somewhat confusing and a consensus should be reached about key concepts and their application. The S.W.I.F.T. User Handbook is a significant step in this direction.[54]

Conclusion

The complex legal problems raised in this article must not divert from more fundamental reflections.

1. Although the lawyer easily puts stress on possible disputes, these have not been frequent, at least not in continental Europe. The explanation for this is due to two main factors:

- A high standard of technology with security procedures makes the sources of disputes scarce.
- The parties to the transaction are professionals who wish to settle disputes on an amiable basis and to prevent them by using continuously more reliable techniques and self-regulating rules.

2. The lawyer seems poorly equipped to fight the challenges posed by the rapid pace of technological evolution. One is strongly tempted to appeal for a legal revolution. Indeed our private law emerged at a time when it did not seem possible to dissociate the concept of economic value from its concrete support. As such, private law does not answer all the questions inherent to the processing and the carrying of the information. But is far-reaching legal reform needed? In our opinion, the response is no, at least for the moment.

Without a doubt, an adaptation in the law of proof is required —as attested by the French Law of July 1, 1980 and the recent Luxembourg law. In this field, the legislature should not tie new legislation too closely to the existing technology.

The liability of the transferring bank could also be stated more explicitly.

The term for the performance of a transfer as well as the point of time at which the transfer becomes final should also be defined more precisely.

Except for these particular points which could be resolved by international agreements between the parties, new legislation seems to be premature. The technical evolution whose results and progress gradually define the real function of the law is not yet finished. Legislative reform cannot control everything; it would require too many details. It cannot be developed too quickly either, because it would rapidly become obsolete.

Some authors have rightly spoken of a "law in expectation."[55] The expression does not refer to a so-called legal gap, because in this transactional field, professional circles generate, at both national and international levels, self-regulation practices usually referred to as "soft law" because of their adaptability and informal character.[56] Moreover, there is no legal gap, as an in-depth knowledge of the essential legal principles generally helps to find

a solution to very unexpected legal questions. In this sense, the information technologies are a real challenge for the lawyer who has to search in basic concepts for the key to situations not explicitly envisaged by the legislature.

Mr. Amory is with the Brussels law firm of Dechert, Price & Rhoads, and is a member of our International Editorial Board. Mr. Thunis is Deputy Director of the Centre de Recherches Informatique et Droit, Namur, Belgium.

Footnotes

1. We do not examine the legal problems raised by the consumer-oriented telematics.

2. The producer may also distribute its own data; it is then called an integrated distributor.

3, 4. For more details on the concept of producer and distributor see V. Poullet & X. Thunis, "Introduction aux aspects juridiques de la télématique in La Télématique, aspects techniques, juridiques et socio-politiques," Story Scientia 1984, at 129.

5. On the distinction between basic telecommunication services and value-added telecommunication services, see Y. Poullet & B. de Crombrugghe, "La règlementation des télécommunications en Belgique," A.B.U.T., Oct. 1985, at 62.

6. For more details, see Y. Poullet & B. de Crombrugghe, *supra* note 5, at 67.

7. For an overview of these problems see U.N. Draft Legal Guide on the Electronic Funds Transfers, A/CN9/250/Add 1.

8. On this problem see H. Lingl, "Risk Allocation in International Interbank Electronic Fund Transfers," Chips & S.W.I.F.T., HLR, 1981, nº3, at 630, and particularly note 124.

9. H. De Page, *Traité élementaire de droit belge,* Bruylant 1940, t.IV, nº 1023.

10. In the field of legal data banks, the user who, as a result of incorrect information, loses his case and suffers damages which are an immediate and direct consequence of the breach of the agreement. But are these damages foreseeable at the moment the contract was made?

11. On the convergence between contractual and delictual liability as regards the causal link, see P. Van Ommeslaghe, "La responsabilite contractuelle in Les obligations contractuelles," Editions du Jeune Barreau 1984, at 243.

12. For a similar proposal in the field of data banks, Y. Poullet & X. Thunis, *supra* note 3,4, at 172.

13. On this subject, see U.N. Draft Legal Guide, *supra* note 7, especially nº 99.

14. M. Vasseur, *Aspects juridiques des nouveaux moyens de paiement, Revue de la Banque,*1982, at 592.

15. H. De Page, *Traité élémentaire de droit civil belge,* Bruxelles, Bruylant 1970, t. IV, nº 142.

16. Cass. 9 déc. 1976, Pas. 1977, 1, 408.

17. For more details, see M. Fontaine in "Les obligations contractuelles" Ed. du Jeune Barreau 1984, at 188.

18. For more details, see P. Van Ommeslaghe, *Examene de jurisprudence Les obligations,* (1974 à 1982) R.C.J.B. 1986, at 212; *See also* J.L. Fagnart & M. Deneve, CHR. de jurisprudence "La responsabilité civile" (1976-1984), J.T. 1985, at 453.

19. For a discussion of the role of the beneficiary's banker agent in substitution of the first banker or agent of the beneficiary for the reception of the payment, see A. Bruyneel, *Le virement in La banque dans la vie quotidienne,* Ed. du Jeune Barreau 1986, at 347, especially footnotes 103, 111 and 118.

20. M. Vasseur, *supra* note 14, in *La Revue de la Banque.*

21. This distinction comes from a study by Professor Scott, Sur les transferts interbancaires par télétransmission aux E.U. Rev. int. de dr. comp. 1985, nº 4.

22. On bank transfers without provision, see A. Bruyneel, *supra* note 19, nº 49.

23. On this subject, see P. Van Ommeslaghe, *Examen de jurisprudence,* nº 106, at 218.

24. For more details, see U.N. Doc. cit. nº 5 and s, nº 23 and s. On erroneous bank transfers, see Van Ryn and Heenen, *Principes de droit commercial,* t. III Bruylant, Bruxelles 1960 nº 2063.

25. This implies that the control and security procedures (*e.g.,* password, secret code) have been falsified or have turned out to be inefficient.

26. Interesting lessons can be drawn from non-electronic fund transfers. See the extensive study of A. Bruyneel, *supra* note 19, at 418.

27. For data banks, see Y. Poullet & X. Thunis, *supra* note 3,4, at 156: "the risk could be with the holder of the means of access either as a sanction or as negligence, either as a logical consequence of the power given to the other user which makes him agent of the subscriber . . . ."

28. M. Vasseur, art. cit. at 592; on the allocation of the liabilities in the consumer-oriented networks, see D. Syx, *Aspects juridiques du mouvement électronique de fonds,* Kredietbank, 1982, at 30 .

29. Cf. on this subject the significant hesitations of the French case law concerning the presumption of knowledge of hidden de facto weighing on the professional vendor for contracts concluded with a professional buyer but in a different specialty. See also the solution put forward by D. Carton for the telex in his articles *Aspects juridiques des ordres de virement transmis par télex D.I.S.E.P.,* nº 2 octobre 1985, at 3.

30. See on the bank transfers, Bruyneel, *supra* note 19, at 423.

31. See on bank transfers and for more details Van Ryn & Heenen, *supra* note 24, 2063, 4éme-Bruyneel, *supra* note 19, at 430.

32. The arguments put forward in the text apply *mutatis mutandis* to the bank which is the victim of a fault or of an error.

33. On this subject, see J.P. Spreutels, *Virement par erreur et cel frauduleux* R.C.J.B. 1984, at 35.

34. Countermanding may be difficult because electronic means tend to speed up the transfer.

35. For more details, see D. Syx, *supra* note 28, at 2; B. Amory & X. Thunis, Note sous Trib. Comm. Liége, 19 janvier 1984, in *La Télématique, Aspects techniques, juridiques et socio-politiques,* Story-Scientia, 1984, at 281.

36. To the exclusion of the bank of the beneficiary, see *supra*. For more details on this question, see P. Van Ommeslaghe R.C.J.B. 1986, at 212.

37. Judgment of the Supreme Court date 21 juin 1979 (J.T. 1979 p. 675) applies the solution to the bank transfers.

38. All the authors do not agree. *Compare* A. Bruyneel, *supra* note 19, at 381, 382 and Van Ryn & Heenen, *supra* note 24, nº 2064.

39. See in the same sense, M. Cabrillac & J.L. Rives-Lange Encylopédie dalloz Dr. Com. virement nº 75.

40. The "mandate" also confers in principle the right to revoke the orders up to the entry of the credit to the account of the beneficiary.

41. For more details, see P.A. Foriers, observations sur l'art. 1994 du Code Civil et l'action directe née de la substitution R.C.J.B. 1981, at 469 (critique de la notion d' "action directe").

42. Could the faulty bank invoke an exemptory clause which governed its relations with the transferring bank? Most of the legal writers are of the opinion that the exemptory clause covers extracontractual liability as well as contractual liability. See for example, Fagnard & Deneve, Responsabilité civile, chr. de juris. J.T. 1985, at 457. But the solution seems to be different here because the transferor is a third party towards the contract and consequently towards the exemptory clause stipulated between the banks.

43. An extracontractual recourse will be rare in practice because the Belgian Supreme Court considers that agents are only liable towards third parties in cases where a general obligation has been violated independently of the particular obligation arising from the contract. See on this particular point, Fagnart & Deneve, *supra* note 42; Van Ommeslaghe, R.C.J.B. 1985, *supra* note 11, at 102.

44. *See* S.W.I.F.T. User Handbook, ch. 6 "Bank Responsibility"; ch. 7 "S.W.I.F.T. Responsibility and Liability."

45. *See* E. De Lhoneux, "Télématique et droit monétaire, in La Télématique t. II, Aspects techniques, juridiques et sociopolitiques," Story Scientia, 1984, Colloque organisé à Namur, at 285.

46. S.W.I.F.T. User Handbook, ch. 7.

47. For more details on the allocation of the liabilities in S.W.I.F.T., see H. Lingl, "Risk Allocation in International E.F.T.," Chips & S.W.I.F.T., H.L.R. 1981, nº 3, at 638.

48. H. Scott, *supra* note 21, at 980.

49. The case law regarding bankrupt companies is full of problems concerning the time when payment is complete. It is of particular importance to determine whether this time precedes or succeeds the declaration of bankruptcy. *See* P. Coppens & F. t'Kint, R.C.J.B. 1984, at 508, nº 73.

50. For more details, see Ambrosia, "New S.W.I.F.T. Rules on the Liability of Financial Institutions for Interest Losses Caused by Delay in International Fund Transfers," *Cornell Int'l L.J.* 429 (1980).

51. *See* Arora, "Recent Developments in Money Transfer Methods," *Lloyd's Maritime & Commercial Law,* 429 (1980).

52. For more details, see the comprehensive study under the auspices of *U.N. Draft Legal Guide on Electronic Funds Transfers,* 30 april 1985, A/CN9/266/Add.1; A. Bruyneel, *supra* note 19, at 400

53. Rev. Trim Dr. comm. 1984, at 129.

54. See particularly articles 6.4.3.2 and 6.4.3.3 of the S.W.I.F.T. User Handbook which define the pay date and the value date.

55. De Lhoneux, *supra* note 45, at 288.

56. The above arguments only apply to professional telematics.